

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently amended) A plasma processing apparatus comprising:
a processing vessel in which a plasma of a CF based gas therein is excited to perform microprocessing on a surface of an object to be processed; and
in-chamber components disposed inside the processing vessel,
wherein at least one of surfaces of the processing vessel's inner wall and the in-chamber components is coated with an Y_2O_3 sprayed coating over a predetermined area and an accumulation of CF based polymer deposits on the surfaces of the inner wall and the in-chamber components is prevented by a reaction between the Y_2O_3 sprayed coating and the CF based polymer deposits.

2. (Original) The plasma processing apparatus of claim 1, wherein the predetermined area is greater than or equal to a surface area $[S(m^2)]$ satisfying the following equation,

$$S = 6.554A / (t \times 5 \times 10^6)$$

wherein A is a gas flow rate (sccm) in the processing vessel and t is a thickness (m) of the Y_2O_3 sprayed coating.

3. (Original) The plasma processing apparatus of claim 2, wherein the predetermined area is greater than or equal to 0.65 m^2 .

4. (Original) The plasma processing apparatus of claim 3, wherein the predetermined area is greater than or equal to 0.91 m^2 .

5. (Original) The plasma processing apparatus of claim 1, wherein the in-chamber components include at least one of an upper and a lower electrode.

6. (Original) The plasma processing apparatus of claim 1, wherein the plasma processing apparatus is used for a contact process.

7. (Original) The plasma processing apparatus of claim 6, wherein the plasma processing apparatus is used for a self-alignment contact process.